



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,523	10/08/2003	Chia-Hsin Li	API76HO	9645
20178 7590 12/18/2007 EPSON RESEARCH AND DEVELOPMENT INC INTELLECTUAL PROPERTY DEPT 2580 ORCHARD PARKWAY, SUITE 225 SAN JOSE, CA 95131				
EXAMINER				
LIU, LIN				
ART UNIT		PAPER NUMBER		
2145				
MAIL DATE		DELIVERY MODE		
12/18/2007		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/681,523

## Applicant(s)

LI ET AL.

## Examiner

LIN LIU

## Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10, 12-14, 16-21, 23, 25-29 and 31-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12-14, 16-21, 23, 25-29 and 31-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/08/2007.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This office action is responsive to communications filed on 10/08/2003. Claims 1-3, 5-10, 12-14, 16-21, 23, 25-29 and 31-32 are pending and have been examined.
2. The information disclosure statement (I.D.S) filed on 11/08/2007 is considered.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. **Claims 12-14 and 16-21** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With regard to **claims 12 and 18**, Applicant has amended the claims to include the term "tangible" in an attempt to overcome the 101 rejection, but the term "tangible" does not limit the instant claims from being electromagnetic carrier wave or transmission signal over a distributed network as disclosed in Specification, paragraph 44. However, Applicant should amend the claims to include the *storage medium*, which should read as follows: "A tangible computer readable *storage medium*". This will eliminate the claims from being the carrier wave or transmission signal. Same rationale applies to their dependent claims.

### ***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. **Claims 1-3, 5-10, 12-14, 16-21, 23, 25-29 and 31-32** are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/990274 in view of **Eisenberg et al. (publication no.: US 2006/0168321 A1)**.

7. The instant claims of the present application do not explicitly disclose wherein the TCP/IP header includes a TCP SEQ number and a TCP ACK number. However, Eisenberg discloses including a TCP SEQ number in the TCP/IP header (Eisenberg, page 7, paragraph 109, noted the TCP/IP sequence number information of the packet is included inside the packet.), a TCP ACK

Art Unit: 2145

number (Eisenberg, page 8, paragraph 112, noted ACK is set in the header).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the instant claims of the present invention to include the TCP/IP sequence number and a ACK number in the header as taught by Eisenberg with the motivation being that it provides better quality of service in delivering packets from one end to another.

8. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims of present application	Claims of application no.: 10/990274
Claim 1	Claim 1
1. A method for tunneling data associated with a packet based multimedia communication standard, comprising:  intercepting a library call associated with the multimedia communication standard;  registering identification data associated with the library call;  adding a Transmission Control Protocol/Internet Protocol (TCP/IP) header over a pre-existing header of a data packet related to the identification data, the method operation of adding a TCP/IP header including, inserting a flag into a lower byte of a window size field of the TCP/IP header; and inserting a checksum into an upper byte of the window size field of the TCP/IP header, and;  transmitting the data packet having the (TCP/IP) header through a firewall.	1. A method for tunneling data associated with a packet based multimedia communication standard, comprising:  intercepting a library call associated with the multimedia communication standard;  registering identification data associated with the library call;  establishing a TCP tunneling connection related to the identification data;  adding a Transmission Control Protocol/Internet Protocol (TCP/IP) header over a pre-existing header of all data packets related to the identification data, wherein the method operation of adding a TCP/IP header includes,  inserting an identifying pre-defined value into an upper byte of a window size field of the TCP/IP header, and  inserting a checksum into a lower byte of

	<p>the window size field of the TCP/IP header; and</p> <p>transmitting the data packets having the (TCP/IP) header through a firewall,</p> <p>wherein the TCP/IP header includes a TCP SEQ number and a TCP ACK number that are incremented and tracked in order to simulate a stateful connection.</p>
<p><b>Claim 7</b></p> <p>7. A method for communicating port traffic through a single Hypertext Transfer Protocol (HTTP) port, comprising:</p> <p>a) establishing a connection between a first and second computing device;</p> <p>b) transmitting allocation data associated with the port traffic to a tunneling driver;</p> <p>c) segmenting the port traffic into datagrams;</p> <p>d) appending a first header to each one of the datagrams; and</p> <p>e) appending a Transmission Control Protocol/Internet Protocol (TCP/IP) header over the first header, the method operation of appending a TCP/IP header including, inserting a flag into a lower byte of a window size field of the TCP/IP header; and inserting a checksum into an upper byte of the window size field of the TCP/IP header,</p> <p>wherein the TCP/IP header is configured to direct each one of the datagrams to the single HTTP port.</p>	<p><b>Claim 7</b></p> <p>7. A method for communicating port traffic through a single Hypertext Transfer Protocol (HTTP) port, comprising:</p> <p>a) establishing a connection between a first and second computing device;</p> <p>b) transmitting allocation data associated with the port traffic to a tunneling driver;</p> <p>c) segmenting the port traffic into datagrams;</p> <p>d) appending a first header to each one of the datagrams; and</p> <p>e) appending a Transmission Control Protocol/ Internet Protocol (TCP/IP) header over the first header,</p> <p>wherein the method operation of appending a TCP/IP header includes,</p> <p>inserting a flag into an upper byte of a window size field of the TCP/IP header,</p> <p>inserting a checksum into a lower byte of the window size field of the TCP/IP header,</p> <p>wherein the TCP/IP header includes a TCP SEQ number and a TCP ACK number that are incremented and tracked in order to simulate a stateful connection,</p>

	and the TCP/IP header is configured to direct each one of the datagrams to the single HTTP port.
Claim 12	Claim 12
12. A tangible computer readable medium having program instructions for tunneling data associated with a packet based multimedia communication standard, comprising:	12. A tangible computer readable medium having program instructions for tunneling data associated with a packet based multimedia communication standard, comprising:
program instructions for intercepting a library call associated with the multimedia communication standard;	program instructions for intercepting a library call associated with the multimedia communication standard;
program instructions for registering identification data associated with the library call;	program instructions for registering identification data associated with the library call;
program instructions for adding a Transmission Control Protocol/Internet Protocol (TCP/IP) header over a pre-existing header of a data packet related to the identification data, the program instructions for adding a TCP/IP header including,	program instructions for establishing a TCP tunneling connection related to the identification data;
program instructions for inserting a flag into a lower byte of a window size field of the TCP/IP header; and	program instructions for adding a Transmission Control Protocol/Internet Protocol (TCP/IP) header over a pre-existing header of all data packets related to the identification data, wherein the program instructions for adding a TCP/IP header includes,
program instructions for inserting a checksum into an upper byte of the window size field of the TCP/IP header; and	program instructions for inserting an identifying value flag into an upper byte of a window size field of the TCP/IP header;
program instructions for transmitting the data packet having the (TCP/IP) header through a firewall.	program instructions for inserting a checksum into a lower byte of the window size field of the TCP/IP header; and
	program instructions for transmitting the data packets having the TCP/IP header through a firewall
	wherein the TCP/IP header is a simulated stateful TCP/IP header and includes a

	TCP SEQ number and a TCP ACK number.
Claim 18	Claim 18
<p>18. A tangible computer readable medium having program instructions for communicating port traffic through a single Hypertext Transfer Protocol (HTTP) port, comprising:</p> <p>a) program instructions for establishing a connection between a first and second computing device;</p> <p>b) program instructions for transmitting allocation data associated with the port traffic to a tunneling driver;</p> <p>c) program instructions for segmenting the port traffic into datagrams;</p> <p>d) program instructions for appending a first header to each one of the datagrams; and</p> <p>e) program instructions for appending a Transmission Control Protocol/Internet Protocol (TCP/IP) header over the first header, the program instructions for appending a TCP/IP header including,</p> <p>program instructions for inserting a flag into a lower byte of a window size field of the TCP/IP header; and</p> <p>program instructions for inserting a checksum into an upper byte of the window size field of the TCP/IP header, wherein the TCP/IP header is configured to direct each one of the datagrams to the single HTTP port.</p>	<p>18. A tangible computer readable medium having program instructions for communicating port traffic through a single Hypertext Transfer Protocol (HTTP) port, comprising:</p> <p>a) program instructions for establishing a connection between a first and second computing device;</p> <p>b) program instructions for transmitting allocation data associated with the port traffic to a tunneling driver;</p> <p>c) program instructions for segmenting the port traffic into datagrams;</p> <p>d) program instructions for appending a first header to each one of the datagrams; and</p> <p>e) program instructions for appending a Transmission Control Protocol/Internet Protocol (TCP/IP) header over the first header,</p> <p>wherein the program instructions for appending a TCP/IP header includes,</p> <p>program instructions for inserting a predefined identifying value into an upper byte of a window size field of the TCP/IP header;</p> <p>program instructions for inserting a checksum into a lower byte of the window size field of the TCP/IP header,</p> <p>wherein the TCP/IP header is a simulated stateful TCP/IP header having a TCP SEQ number and a TCP ACK number and is configured to direct each one of the</p>



Art Unit: 2145

	datagrams to the single HTTP port.
<b>Claim 23</b>	<b>Claim 23</b>
23. A system for tunneling port traffic destined for multiple ports through a single port, comprising:	23. A system for tunneling port traffic destined for multiple ports through a single port, comprising:
a server configured to transmit data packets each having a tunneling header in addition to a packet header;	a server configured to transmit data packets over a TCP connection, each data packet having a tunneling header in addition to a packet header;
a firewall limiting a number of unblocked TCP ports, the firewall capable of analyzing the tunneling header, wherein the tunneling header is associated with the single port so that the firewall allows the data packets to pass through; and	a firewall limiting a number of unblocked TCP ports, the firewall capable of analyzing the tunneling header, wherein the tunneling header is associated with the single port so that the firewall allows the data packets to pass through; and
a client configured to receive the data packets from the firewall through the single port, the client further configured to identify a flag and a checksum associated with the tunneling header in order to strip the tunneling header for access to the packet header, wherein the flag and the checksum are incorporated into a window size region of the tunneling header.	a client configured to receive the data packets from the firewall through the single port, the client further configured to identify a flag and a checksum associated with the tunneling header in order to strip the tunneling header for access to the packet header,  wherein the tunneling header is stateful having a TCP SEQ number and a TCP ACK number,  wherein the flag and the checksum are incorporated into a window size region of the tunneling header.

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In*

Art Unit: 2145

*re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims **1-3, 5-10, 12-14, 16-21, 23, 25-29 and 31-32** are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of **U.S. Patent No. 7,263,071**. Although the conflicting claims are not identical, they are not patentably distinct from each other because both cases are directed toward modifying the data packets by adding TCP/IP header to the data packets by inserting a flag/predefined value into a lower byte of a window size field of the TCP/IP header and inserting a checksum into an upper byte of the window size field of the TCP/IP header and transmitting the data packets over the network. Wherein the *predefined value* disclosed in Patent no.: US 7,263,071 is equivalent to the *flag* as disclosed in the present application, and the *designated field corresponding to a window size fields* are equivalent to the *lower and upper byte of the window size fields* as disclosed in the present application.

Therefore, in view of the above comparisons, it is sufficiently to say that the present application is an obvious variation of Patent no.: US 7,263,071.

Claims of present application	Claims of Patent No.: US 7,263,071
1. A method for tunneling data	1. A method of conducting a

<p>associated with a packet based multimedia communication standard, comprising:</p> <p>intercepting a library call associated with the multimedia communication standard;</p> <p>registering identification data associated with the library call;</p> <p>adding a Transmission Control Protocol/Internet Protocol (TCP/IP) header over a pre-existing header of a data packet related to the identification data, the method operation of adding a TCP/IP header including,</p> <p>inserting a flag into a lower byte of a window size field of the TCP/IP header; and</p> <p>inserting a checksum into an upper byte of the window size field of the TCP/IP header, and</p> <p>transmitting the data packet having the (TCP/IP) header through a</p>	<p>communication exchange between systems over a communication network, comprising:</p> <p>formatting of data by a first system into an IP datagram with an IP header and one of a TCP and a UDP header;</p> <p>constructing a connectionless TCP/IP header to add to the formatted data, the connectionless TCP/IP header including a pre-defined identifying value in a designated field;</p> <p>transmitting the formatted data having the connectionless TCP/IP header from the first system to a second system;</p> <p>verifying the pre-defined identifying value in the designated field and identifying the connectionless TCP/IP header;</p> <p>removing the identified connectionless TCP/IP header from the</p>
---	--

<p>firewall.</p>	<p>IP datagram; and</p> <p>processing the IP datagram.</p> <p><b>4.</b> The method of claim 1, wherein the connectionless TCP/IP header further includes a checksum in an other designated field, the checksum validating the pre-defined identifying value in the designated field of the connectionless TCP/IP header.</p> <p><b>5.</b> The method of claim 1, wherein the designated field is an upper byte of a Window Size field of the connectionless TCP/IP header.</p> <p><b>6.</b> The method of claim 4, wherein the other designated field is a lower byte of the Window Size field of the connectionless TCP/IP header.</p>
<p><b>7.</b> A method for communicating port traffic through a single Hypertext Transfer Protocol (HTTP) port, comprising:</p> <p>a) establishing a connection</p>	<p><b>9.</b> In a video conferencing system, a method of communication between cooperating systems, comprising:</p> <p>constructing a connectionless TCP/IP header, the connectionless</p>

<p>between a first and second computing device;</p> <p>b) transmitting allocation data associated with the port traffic to a tunneling driver;</p> <p>c) segmenting the port traffic into datagrams;</p> <p>d) appending a first header to each one of the datagrams; and</p> <p>e) appending a Transmission Control Protocol/Internet Protocol (TCP/IP) header over the first header, the method operation of appending a TCP/IP header including,</p> <p>inserting a flag into a lower byte of a window size field of the TCP/IP header; and</p> <p>inserting a checksum into an upper byte of the window size field of the TCP/IP header,</p> <p>wherein the TCP/IP header is configured to direct each one of the</p>	<p>TCP/IP header having a flag in a designated field corresponding to a window size field of the connectionless TCP/IP header for identifying the connectionless TCP/IP header and a checksum in an other designated field corresponding to the window size field of the connectionless TCP/IP header for validating the connectionless TCP/IP header;</p> <p>attaching the connectionless TCP/IP header to an IP datagram; and</p> <p>transmitting the IP datagram with the connectionless TCP/IP header, wherein the connectionless TCP/IP header is removed by a receiving cooperating system and the IP datagram is processed without transmitting acknowledgement and without requesting verification.</p> <p><b>10.</b> The method of claim 9, wherein the designated field is an upper byte of</p>
---	---

<p>datagrams to the single HTTP port.</p>	<p>the Window Size field of the connectionless TCP/IP header.</p> <p><b>11.</b> The method of claim 9, wherein the other designated field is a lower byte of the Window Size field of the connectionless TCP/IP header.</p>
<p><b>23.</b> A system for tunneling port traffic destined for multiple ports through a single port, comprising:</p> <p style="padding-left: 40px;">a server configured to transmit data packets each having a tunneling header in addition to a packet header;</p> <p style="padding-left: 40px;">a firewall limiting a number of unblocked TCP ports, the firewall capable of analyzing the tunneling header, wherein the tunneling header is associated with the single port so that the firewall allows the data packets to pass through; and</p> <p style="padding-left: 40px;">a client configured to receive the data packets from the firewall through the single port, the client further configured</p>	<p><b>14.</b> A communication protocol for establishing and maintaining an exchange between cooperating systems, the communication protocol comprising:</p> <p style="padding-left: 40px;">formatting data to be transmitted into an IP datagram;</p> <p style="padding-left: 40px;">attaching a connection less TCP/IP header to the IP datagram;</p> <p style="padding-left: 40px;">transmitting the IP datagram with the connectionless TCP/IP header as a new IP datagram;</p> <p style="padding-left: 40px;">receiving the new IP datagram;</p> <p style="padding-left: 40px;">identifying the connectionless TCP/IP header;</p> <p style="padding-left: 40px;">removing the connectionless</p>

<p>to identify a flag and a checksum associated with the tunneling header in order to strip the tunneling header for access to the packet header, wherein the flag and the checksum are incorporated into a window size region of the tunneling header.</p>	<p>TCP/IP header from the new IP datagram; and</p> <p>processing the new IP datagram,</p> <p>wherein the new IP datagram is processed without acknowledgement and without transmitting a request for verification, wherein the connectionless TCP/IP header includes a pre-defined identifying value in a designated field corresponding to a window size field of the connectionless TCP/IP header for identifying the connectionless TCP/IP header and a checksum in another designated field corresponding to the window size field of the connectionless TCP/IP header for validating the connectionless TCP/IP header.</p> <p><b>15.</b> The communication protocol of claim 14, wherein the pre-defined value is an odd number, and the designated field is an upper byte of the Window</p>
---	---

	<p>Size field.</p> <p><b>16.</b> The communication protocol of claim 14, wherein the other designated field is a lower byte of the Window Size field.</p>
<p><b>27.</b> A communication protocol stack for enabling multimedia communication between communicating devices, comprising:</p> <p>at an application level, identifying whether received communication data is for a communication port; and</p> <p>if the received communication data is for the communication port, forwarding identification data regarding the received communication data to a table in advance of forwarding the received communication data to a driver level of the communication protocol stack, wherein a tunneling driver associated with the driver level</p>	<p><b>20.</b> An integrated circuit chip for exchanging communication between cooperating systems, comprising:</p> <p>logic for constructing a connectionless TCP/IP header, the connectionless TCP/IP header including a flag in a designated field corresponding to a window size field of the connectionless TCP/IP header for identifying a communication as a connectionless TCP/IP communication; and</p> <p>logic for constructing a checksum in an other designated field corresponding to the window size field of the connectionless TCP/IP header for verifying the communication is a</p>



<p>inserts a tunneling header over a header of the communication data when the communication data is for the communication port, wherein the method operation of inserting a tunneling header includes,</p> <p>inserting a flag into a lower byte of a window size field of the tunneling header; and</p> <p>inserting a checksum into an upper byte of the window size field of the tunneling header.</p>	<p>connectionless TCP/IP communication;</p> <p>logic for identifying the flag in the designated field to identify the communication as a connectionless TCP/IP communication; logic for verifying the checksum to validate the communication is a connectionless TCP/IP communication;</p> <p>logic for removing the connectionless TCP/IP header from an IP datagram; and</p> <p>logic for processing the IP datagram without the connectionless TCP/IP header,</p> <p>wherein the processing of the IP datagram is without transmission of acknowledgement and without transmission of a request for verification.</p> <p><b>21.</b> The integrated circuit chip of claim 20, wherein the IP datagram is a UDP datagram.</p>
--	--

	<p><b>22.</b> The integrated circuit chip of claim 20, wherein the flag is an odd number, and the designated field is an upper byte of the Window Size field of the connectionless TCP/IP header.</p> <p><b>23.</b> The integrated circuit chip of claim 20, wherein the checksum is written to another designated field, the other designated field being a lower byte of the Window Size field of the connectionless TCP/IP header.</p>
<p><b>12.</b> A computer readable medium having program instructions for tunneling data associated with a packet based multimedia communication standard, comprising:</p> <p style="padding-left: 40px;">program instructions for intercepting a library call associated with the multimedia communication standard;</p> <p style="padding-left: 40px;">program instructions for registering identification data</p>	<p><b>26.</b> A computer readable storage device having program instructions executable by a computer for exchanging communication between cooperating systems, comprising:</p> <p style="padding-left: 40px;">program instructions for constructing a connectionless TCP/IP header, the connectionless TCP/IP header having a flag in a designated field corresponding to a window size field of the connectionless TCP/IP</p>

<p>associated with the library call;</p> <p>program instructions for adding a Transmission Control Protocol/Internet Protocol (TCP/IP) header over a pre-existing header of a data packet related to the identification data, the program instructions for adding a TCP/IP header including,</p> <p>program instructions for inserting a flag into a lower byte of a window size field of the TCP/IP header; and</p> <p>program instructions for inserting a checksum into an upper byte of the window size field of the TCP/IP header; and</p> <p>program instructions for transmitting the data packet having the (TCP/IP) header through a firewall.</p>	<p>header for identifying the connectionless TCP/IP header and a checksum in an other designated field corresponding to the window size field of the connectionless TCP/IP header for validating the connectionless TCP/IP header;</p> <p>program instructions for attaching the connectionless TCP/IP header to an IP datagram; and</p> <p>program instructions for transmitting the IP datagram with the connectionless TCP/IP header, wherein the connectionless TCP/IP header is removed by a receiving cooperating system and the IP datagram is processed without transmitting acknowledgement and without requesting verification.</p> <p><b>27.</b> The computer readable storage device of claim 26, wherein the designated field is an upper byte of the</p>
---	--

	Window Size field of the connectionless TCP/IP header. <b>28.</b> The computer readable storage device of claim 26, wherein the other designated field is a lower byte of the Window Size field of the connectionless TCP/IP header.
--	--

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bressoud et al. (PGPUB. No.: US 2001/0056492 A1) discloses a method for maintaining connections between computers using connection-oriented protocols
- Ziai et al. (Patent no.: US 6,976,205 B1) discloses a method for calculating TCP and UDP checksums while preserving CPU resources.
- Qarni et al. (Patent no.: US 6,438,105 B1) discloses a method for reliable Internet facsimile transmission protocol over an IP network.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Liu whose telephone number is (571) 270-

Art Unit: 2145

1447. The examiner can normally be reached on Monday - Friday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on (571) 272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. L./

/Lin Liu/

Examiner, Art Unit 2145

/Jason D Cardone/  
Supervisory Patent Examiner, Art Unit 2145